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AMARC
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Phantom jet haunts Florida skies

By Terry Vanden-Heuvel
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It was a direct and eliminating hit, and what should have been the end of the line for an QF-4 Phantom II Full Scale Aerial Target. Instead, the strike became an opportunity for Aerospace Maintenance and Regeneration Center technicians to demonstrate their unique talent in aircraft maintenance and reconstruction.

Recently the Phantom suffered extensive missile damage to its aft section during a warfare exercise over the Atlantic Ocean near Tyndall Air Force Base, Fla. Even though the QF-4's blast shields and tail hook were visibly shattered by shrapnel, the 82nd Aerial Target Squadron's remotely controlled drone made a safe return.

"The plane was damaged beyond our repair capability," said Marion "Dirt" Dillon, Lockheed's full-scale aerial target maintenance supervisor. "This aircraft suffered major structural damage and we knew AMARC had the knowledge and skill to make it flyable again. We knew AMARC could do it," he said.

With a price tag of more than $725,000 for a replacement drone, it was decided to return the aircraft to the sky by engaging AMARC experts in the repair of the aircraft—a dramatic cost savings of $620,000.

Four AMARC members took up the challange and went to Tyndall AFB to begin the drone's repair process.

David Peterson

Aircraft structural engineers James Gunn (left), Hill Air Force Base, Utah, and Gene Fischer, Aerospace Maintenance and Regeneration Center, remove damaged titanium blast shields from an QF-4 Phantom II at Tyndall Air Force Base, Fla.

A Tynall AFB fire crew assisted with a fire rescue saw to remove the mangled sheets of blast shield metal and expose the extensive internal damage. Tangled in the bulkhead were perforated and twisted fuel and hydraulic lines.

Replacement parts including titanium blast shields, heat blankets and a tail hook were cannibalized from donor aircraft; however, it would prove to be a testimony of the work crews' versatility to correct the missile damage to the QF-4's keel beam.

To repair structural beam breaks, inner and outer layers of stainless steel panels had to be custom made around filler material and engineered to line up with the existing rivet holes.

Utilizing Lockheed's fabrication facilities,

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A piece of history ...

U.S. Air Force Archives

Tech. Sgt. Brian Davidson

A C-141C, the fifth aircraft to wear the famous "Memphis Belle" nose art, is moved into storage. The aircraft, designated the "Memphis Belle 5" was built in 1967, and arrived at the Aerospace Maintenance and Regeneration Center in March from the 164th Air Wing, Memphis, Tenn.
Other aircraft adorned with the "Memphis Belle" include a B-52, F-105 and even a B-1. The panel from the B-52 Memphis Belle is displayed in the AMARC command conference room.
***Inset left**- The C-141 nose art is easily recognizable to aviation enthusiasts and the AMARC assigned control number is now stenciled just below.*
***Inset right-** The original "Memphis Belle," a Boeing B-17 bomber with her crew in May, 1943. The aircraft was the first B-17 to complete 25 successful missions over Europe during WWII. The Belle is now preserved and on display at the Memphis Bell Museum in Memphis, Tenn.*
For more information on the Belle, visit ***www.memphisbelle.com****.*

Core values map road to success

Col. Lourdes Castillo
AMARC Commander

Recently, a young officer writing a research paper on organizational leadership asked me, "What influence had the many lectures received during professional military education had on my leadership style?" It wasn't a simple question to answer.

Some of the tools studied through PME provided ways to ascertain whether I have been operating efficiently and allowed me to identify those areas that needed improvement, but those lectures have had little affect on my leadership style.

My leadership style was formed from years of mentorship by the senior leaders I've had the privilege to work for. When asked to name the right ingredients to be a successful leader, I explained that although many are beneficial, only a few are absolutely necessary. In fact, our Air Force core values provide all the right ingredients for anyone's success.

"But which of them is the most necessary to produce successful leadership?" the officer asked. The answer is simple. Without "integrity first," we can't go very far. Integrity lapses produce problems, and if unchecked will surely result in mission failure.

Next, hard work and sacrifice, as is called for in "service before self," can overcome many barriers. Service before self deals with more than a single component of someone's character. It demands effort, sacrifice, discipline and perseverance.

Although integrity and service are extremely important, our final core value, "Excellence in all we do," is how the Air Force has always been, and always will be, measured.

I also believe that the human dimension of leadership is important, and is built upon hard to define traits such as courage, charisma, intellect and intuition.

Trying to develop a "one-size-fits-all" list of ingredients, guaranteed to produce good leaders, makes for interesting discussion, but in reality, proves to be a pretty elusive target.

"So what do we do to continue being successful?" the officer asked. First, we must adapt to the requirements of the future while being flexible and fully utilizing technology.

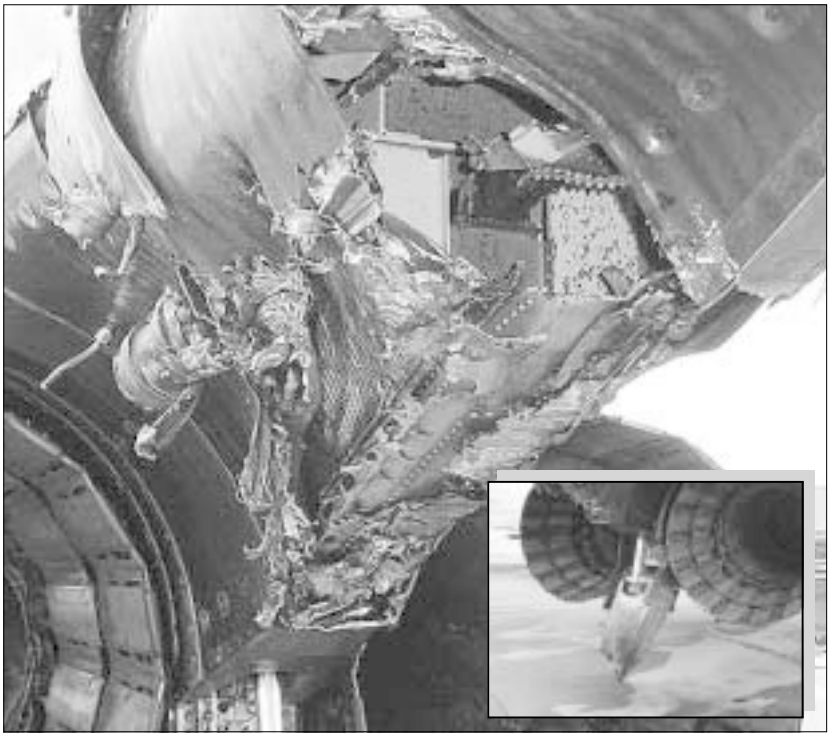
Second, we must apply the lessons of the past to ensure that our people train and work while also taking care of each other. We must demonstrate and encourage loyalty both up and down the chain and replace the "me first" mentality with teamwork.

Finally, we should realize that good leadership is situational. It requires different talents for different missions and accepts the fact that great leaders can come in many packages and from various backgrounds.

I am sharing this experience with you because, although the questions were directed towards military leadership, the Air Force values-based leadership style is equally important to our civilian leadership.

We have seen the absence of core values cost private businesses their reputations as their leaders betrayed the confidence of their employees and outside shareholders. We have also witnessed the best organizations in the corporate world who demonstrate very clear values.

Only by creating, embedding and living by strong values can an organization expect to achieve success. These values ensure we retain the customer confidence and public trust and support that is critical to our success.



Courtesy photos

Extensive missile damage that ripped through the titanium blast shields on the QF-4 reveals just how tough the aircraft is. ***Inset photo****- The aircraft made a safe landing despite having its tail hook blown off.*

Phantom

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Eugene Fischer, aircraft structural mechanic, measured, cut and formed the critical stainless steel panels, completely re-creating the main lower structure of the aircraft by hand.

"The only thing more challenging than this job would have been trying to get the job done while being fired at," added Mr. Fischer, who served in Vietnam as a helicopter battle damage repair technician.

Also on the AMARC repair crew were aircraft mechanics Robert "Red" Statom and David Peterson.

"This crew did everything from shooting rivets to performing structural repair," said Audrey "Bucky" Webb, repair team leader. "They met a tough challenge, and thanks to teamwork and versatility, we were able to get the mission accomplished ahead of schedule."

One of more than 5,000 F-4s built, this Phantom II began its active duty service life in 1969. It was eventually retired from the 35th Fighter Wing, George Air Force Base, Calif., and entered AMARC in March 1992, where it remained grounded in the desert heat for seven years.

The aircraft was selected for the QF-4 drone program and returned to flight status in March, 1999. Now, with the battle damage repaired, it returns to drone duty this month.

"The AMARC crew did a super job," Mr. Dillon said. "All system tests on the aircraft have been completed since their departure and everything is working great!"

There are more than 600 F-4 aircraft at AMARC, many of which will enter the seven-month regeneration process for use in the drone program.